

REMARKS

Applicants timely submit this Response and Request for Reconsideration to the Examiner's Office Action of December 15, 2008. Applicants have carefully reviewed the Office Action and the following remarks are made in response thereto. In view of the following remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

I. Summary of the Office Action

1. Claims 1, 2, 5, 6, and 21-26 are pending in the application.
2. Claims 1, 2, 5, 6, and 21-26 are rejected under 35 USC § 103(a) as allegedly obvious over Buschhaus *et al.* (International Application Publication No. WO 98/18328) in view of Isato *et al.* (JP Patent No. JP 8039511 and Sun *et al.* (U.S. Patent Application Publication No. 2003/0194419).
3. No claims were allowed.

II. Response to the Office Action

1. Claim Rejections under 35 U.S.C. §103(a)

A. Buschhaus *et al.* in view of Isato *et al.* and Sun *et al.*

Claims 1, 2, 5, 6, and 21-26 stand rejected under 35 USC § 103(a) as allegedly unpatentable over Buschhaus *et al.* (International Application Publication No. WO 98/18328) in view of Isato *et al.* (JP Patent No. JP 8039511) and Sun *et al.* (U.S. Patent Application Publication No. 2003/0194419).

The Examiner alleges that, absent evidence to the contrary, the invention is *prima facie* obvious over the combination of Buschhaus, Isato and Sun (page 6 of the Office Action).

Applicants respectfully traverse the rejection because a *prima facie* case of obviousness has not been established by the Office. *Nowhere in any of the cited references is there any teaching or suggestion of particulate bifenthrin, let alone particulate bifenthrin having the size range required in the claims.* The rejection also does not comply with the standards set out by the Supreme Court in the recent KSR v. Teleflex decision or the USPTO guidelines for evaluating obviousness under KSR.¹

As discussed in further detail below, the claimed glue compositions possess unexpected properties that could not have been predicted prior to the invention. For these reasons alone, the rejection is improper and should be withdrawn.

The instant claims require particulate bifenthrin having a mean particle size of 1-10 μm . As described in the specification, Applicants have surprisingly discovered that the repellent effect of bifenthrin as a glue line additive is significantly influenced by particle size. Formulations containing bifenthrin with particle sizes greater than 1 μm protect the external veneer of wood products better than bifenthrin formulations with particle sizes of less than 1 μm (see page 6, lines 20-31 and Table 3 of the application). This is an unexpected beneficial property of the claimed compositions which was not predictable at the time of the invention.

The inventors discovered that formulations containing a mean particle size (of the active ingredient) of 0.1 μm or less require both a glue line treatment and face treatment to stop termites from attacking the engineered wood product. However, where

¹ KSR International, Co. v. Teleflex, Inc. 127 S.Ct. 1727

the mean particle size is 1-10 μm , surface treatment is not needed. With veneer based composites having a veneer thickness of 3.2 mm or more, it was found that at equal loadings, formulations with larger particle sizes protected the external veneer of the product better than those having smaller particle sizes (See page 6, lines 20-31).

Applicants have also surprisingly discovered that degradation of bifenthrin as a glue line additive is significantly influenced by particle size. In formulations containing bifenthrin with particle sizes greater than 1 μm , less degradation of bifenthrin was observed than in formulations containing bifenthrin having particle sizes of less than 1 μm (see page 9, lines 1-6 of the application). This is an additional unexpected and unpredictable property of the claimed compositions.

Thus, Applicants respectfully disagree that the claimed invention would have been obvious to a person having ordinary skill in the art at the time the invention was made.

Even assuming that particulate bifenthrin having the required size range was disclosed in the references of record, which it is not, as stated in KSR, the “combination of familiar elements according to known methods is likely to be obvious *when it does no more than yield predictable results.*” [emphasis added] KSR International, Co. v. Teleflex, Inc. 127 S.Ct. 1727, 1731. Thus, under the KSR standard, when evaluating whether a claimed invention is obvious, the question to be asked is “whether the improvement is more than the predictable use of prior-art elements according to their established functions.” *Id.* at 1731. Additionally, “when a patent claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a

predictable result." Id. at 1740 [emphasis added]. As discussed above, the recited combination of elements required by the claims exhibits surprising and unexpected properties that were not predictable at the time of the invention. For this reason alone, the rejection should be withdrawn.

The rejection is also improper because elements required by the claims are not taught or suggested by any of the references of record. Specifically, none of the references of record teaches or suggests particulate bifenthrin, let alone particulate bifenthrin having the required size range. The Office has therefore not established a *prima facie* case of obviousness.

The primary reference relied on by the Office, Buschhaus *et al.*, does not teach particulate bifenthrin. Buschhaus *et al.* teach mixtures of binders or adhesives which can be used in the manufacture of plywood and timber materials with the compounds of the general formula (I) specified in Buschhaus *et al.* (page 1, lines 21-25 of Buschhaus *et al.*). Buschhaus *et al.* discloses that glues and adhesives are used as binders, and biocides, such as insecticides and fungicides, can be incorporated into the bonding agent (page 8, lines 7-19 of Buschhaus *et al.*). As the Examiner acknowledges in the Office Action (page 5), Buschhaus *et al.* does not disclose bifenthrin and Buschhaus *et al.* does not disclose any particle sizes of insecticide or fungicide in the mixtures of binder or adhesives. Therefore, Buschhaus *et al.* does not contemplate, suggest or teach particulate bifenthrin with a mean particle size of 1-10 μm .

The Examiner alleges that, absent evidence to the contrary, it is *prima facie* obvious to substitute one known insecticide (*i.e.* bifenthrin) for another in the formulation of Buschhaus *et al.*, because Isato *et al.* teach bifenthrin-containing adhesives

including other additives such as wheat flour for use with wood. Applicants respectfully disagree.

Isato *et al.* does not disclose or suggest particulate bifenthrin or that the disclosed bifenthrin has a mean particle size of 1-10 μm . Isato *et al.* is completely silent as to particulate insecticides. Further, the Example beginning at paragraph [0009] of Isato *et al.* demonstrates that the adhesives are prepared as a "pasty liquid" with a resin emulsion, curing agent, and an insecticide (See [0009] of Isato *et al.*, English translation). Therefore, substitution of the insecticide of Buschhaus *et al.* with the bifenthrin taught by Isato *et al.* does not provide particulate bifenthrin with a mean particle size between 1-10 μm . The Examiner's combination of Buschhaus *et al.* and Isato *et al.* do not teach every element of the pending claims, nor do they render the claimed invention obvious.

Sun *et al.* do not teach or suggest particulate bifenthrin, let alone particulate bifenthrin having the required size range. Sun *et al.* is directed to a process for the preparation of a coated pesticidal matrix comprising a pesticidal agent, a pH-dependent polymer and water, in which the pH is below the solubilization pH of the polymer. Importantly, Sun *et al.* does not disclose bifenthrin. Pesticidal agents suitable for use in the disclosed compositions of Sun *et al.*, when in solid form, have a particle size prior to coating of less than 10 μm , preferably, about 0.1 μm to 5 μm (See [0021] of Sun *et al.*).

For the reasons above, Applicants respectfully request that the rejections be withdrawn.

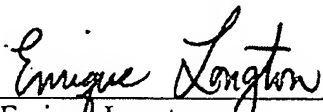
III. Conclusion.

Applicants believe that the above-referenced application is in condition for allowance. Reconsideration and withdrawal of the outstanding rejections and early notice of allowance to that effect is respectfully requested.

EXCEPT for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account 13-3250, Reference No. 38184.04013US. This paragraph is intended to be an **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with C.F.R. § 1.136(a)(3).

Respectfully submitted,
**MILBANK, TWEED, HADLEY & McCLOY
LLP**

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By: 
Enrique Longton
Registration No. 47,304

Customer No. 000038647
Milbank, Tweed, Hadley & McCloy LLP
International Square Building
1850 K Street, N.W., Suite 1100
Washington, D.C. 20006
Telephone: (202) 835-7525
Facsimile: (202) 263-1253